Citizen Science and Nontraditional Monitoring Data Integration into the Chesapeake Bay Program Partnership

Maryland Streams Roundtable

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Alliance for the Chesapeake Bay

Partners

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Chesapeake Bay Program
A Watershed Partnership

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Save Our Streams

- **Nationwide:** macroinvertebrate field identification at class/order/family level and basic habitat information
- **Maryland:** ~60 volunteers, ~20 sites, 2-4 sampling events per year

MD Groups Using SOS Protocols

- IWLA chapters in Montgomery and Harford Counties, City of Gaithersburg, City of Rockville, Savage River Watershed Association, and Muddy Branch Alliance

Databases & Resources

www.iwla.org/sos

www.creekfreaks.net

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Step 1

Step 2

Step 3

SENSITIVE	LESS SENSITIVE	TOLERANT
_____ Caddisflies (except net spinners) _____ Mayflies _____ Stoneflies _____ Watersnipe flies _____ Riffle beetles _____ Water pennies _____ Gilled snails	_____ Dobsonflies _____ Fishflies _____ Common net spinning Caddisflies _____ Crane flies _____ Damselflies _____ Dragonflies _____ Alderflies _____ Crayfish _____ Scuds _____ Aquatic sowbugs _____ Clams _____ Mussels	_____ Aquatic worms _____ Black flies _____ Midge flies _____ Leeches _____ Lunged snails
____ # of letters multiplied by 3 =_____	____ # of letters multiplied by 2 =_____	____ # of letters multiplied by 1 =_____
Now add the three totals from each column for your stream's index value. Total index value = _____		

Compare the final index value to the following ranges of numbers to determine the water quality of the stream sample site.

Water Quality Rating

_____ Excellent (> 22) _____ Good (17-22) _____ Fair (11-16) _____ Poor (< 11)

or the
ay

Citizen Science and Nontraditional Monitoring Project Objectives

- Expand volunteer and nontraditional monitoring in the Chesapeake Bay watershed
- Provide standardized technical support to ensure high-quality data collection
- Integrate citizen collected data into the Chesapeake Bay Program Partnership's monitoring network

- **Inform** Bay restoration decision-making
- **Track** local river trends
- **Engage** local communities

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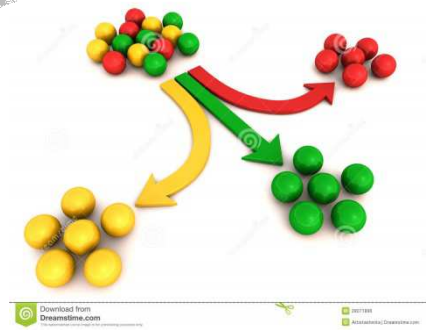
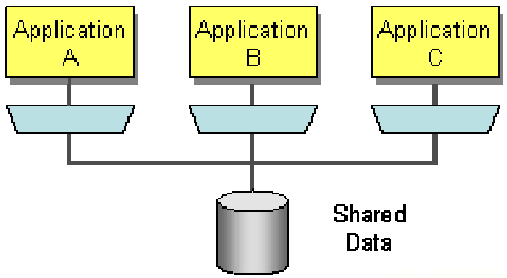
How will we meet these objectives?

- Inventory
- Survey
- Engage
- Classify
- Identify data gaps
- Develop a database
- Train
- Provide resources





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Types of Data

- Water quality/chemistry
- Biological – macroinvertebrates and submerged aquatic vegetation
- Physical – habitat and stream bank assessments

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Tiered Framework for Data Classification

- First non-traditional data integration project at the federal level.
- Look to states for models of data integration (thank you Virginia, Missouri, Michigan, Alabama, and Indiana).

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Tiered framework

Tiers	Intended Data Use
Tier 1	Education, Environmental Health Screening
Tier 2	Environmental Health Report Cards, Environmental Health Screening, Targeting of Management Actions
Tier 3	Regulatory Assessments of Water Quality Standards Attainment

Hidden Tier Zero – there are data requirements that must be met to be included in this project.

Opportunities for you!

- See me to check that you are included in the monitoring group inventory
- Participate in the survey
- Attend trainings for monitoring methods, database submission, and communication tools
- Join the Volunteer Advisory Committee to provide input on monitoring protocols, database development, and data evaluation tools

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